

Oceanic/Remote C&S Sub-project

Discussion Questions:

What we came up with ---

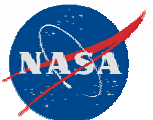
- What cost elements are presenting barriers to full equipage with satcom avionics capable of enabling 30/30 separation in oceanic domains?
- What are the regional differences in Oceanic ATC regimes that must be considered in developing both global and transparent oceanic solutions?
- What is the value of real-time, oceanic weather data and should it be factored into the oceanic communications solution?

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What cost elements are presenting barriers to full equipage with satcom avionics capable of enabling 30/30 separation in oceanic domains?

- What percentage of fleets need equipage?
- What is the baseline costs for HF and FANS systems?
- What are the costs for the procedures for the current system compared to changes?
- Lack of guaranteed Return of Investment; concern about commitments to implementation
- At what point does traffic growth or efficiency (altitudes) mandate changes in separation? How do we reduce costs to encourage wide equipage?
- Provide open standard for ADS, which will drive cost down
- Start at North Atlantic for ideas
- Mesh network with VHF radios instead of SatCom?
- Look at total package for benefits (ie AOC) for fuel savings, delays.
- Compare performance levels with today's systems and future systems and roadmaps for service providers.
- Look into ICAO standards for safety and service requirements for future requirements.
- How can NASA drive down costs for 70% not currently equipped or training?
- What political issues are involved in the business case preventing equipage?
- Cost of message service
- Guarantee of benefits from FAA, NAV CANADA, CAA
- Consensus of ATC organizations for benefits, incentive for equipage, disincentive for non-equipage?
- Can ground systems/runways handle increased traffic/efficiency? What alternative airports could handle increased traffic/efficiency?
- Standardized protocols/interfaces, would this help reduce costs?

Glenn Research Center at Lewis Field



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What are the regional differences in Oceanic ATC regimes that must be considered in developing both global and transparent oceanic solutions?

- ACARS/ATN interoperability over VDL-2
- Mobile Satellite Ventures (MSV) over CONUS
- Compare systems to AMSS requirements
- Separation standards are different in every region
- How do you get to most optimum separation in different regions?
- Inmarsat has a waiver to carry ATS communications, not full approval

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What is the value of real-time, oceanic weather data and should it be factored into the oceanic communications solution?

- Define timely need of weather, real-time vs. delayed, to determine benefit
- Determine bandwidth required
- Timeliness depends on phase of flight?
- Look at FAA Aviation Weather Research Program (does weather and safety for 10+ years)
- How to provide cheapest link to provide weather data globally, similar to WSI and XM radio over CONUS